

Product Evaluation

SK19 | 0122

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SK-19

Effective Date: January 1, 2022

Re-evaluation Date: December 2024

Product Name: Model 160 DS and Model 290 DS Daylighting System, Impact Resistant

Manufacturer: Solatube International, Inc.

2210 Oak Ridge Way

Vista, CA 92081-8341

(760) 597-4427

General Description:

System	Description	Label Rating	Design Pressure Rating
1	Model 160 DS and Model 290 DS Daylighting System	CW-PG70 (14") Dia – Type TDD Missile Level D	+70 / -70 psf

Product Dimensions:

System	Component	Model 160 DS	Model 290 DS
1	Dome Size	11-7/8"	15-7/8"
	Dome Height	5-7/8"	6-15/16"
	Dome Thickness	1/8"	1/8"
	Dome Material	Inner Dome: Acrylic by Arkema (DR101) Outer Dome: Acrylic by Cyro (ZK5)	Inner Dome: Acrylic by Arkema (DR101) Outer Dome: Acrylic by Cyro (ZK5)

Product Identification (Certification Label on Skylight):

System		
1	Certification Agency	Keystone
	Manufacturer's Name or Code Name	Solatube International Inc. CAR 110-201; CAR 110-110
	Product Name	Model 160 DS / 290 DS/Smart LED – HVHZ Daylighting System
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08 ASTM E 1886-05, ASTM E 1996-05, Missile Level D

Impact Resistance:

System	Impact Resistant	Requirement
1	Yes	These products satisfy TDI's criteria for protection from windborne debris. Install the assemblies at a height on the structure that does not exceed the design pressure rating for the assemblies.

Installation: Secure the TDD to a minimum nominal 3/4" thick plywood roof deck. Before installing, center the roof flashing over the location you will install the TDD. Mark the inside circumference onto the roof covering with a lumber crayon. Cut a hole 1/2" outside of the marked line to expose the roof deck. Avoid cutting the roof framing members. Remove or loosen enough roof covering material along the perimeter of the roof hole to allow for the installation of the flashing. Apply a continuous 3/8" bead of roofing sealant to the underside of the flashing along the line of the screw holes. Turn the flashing upright and center over the roof hole. The flashing is attached to the plywood roof deck with eight (8) No. 10 x 2" screws through equally spaced pre-drilled holes in the flashing. Use fasteners long enough to penetrate into and through the roof deck material. The TDD is assembled as described in this evaluation report and in the manufacturer's installation instructions.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.